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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,468	10/20/2003	Donald L. Swihart	58575-249460	4141

7590 12/30/2004

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EXAMINER

SCHILLING, RICHARD L

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/689,468

Applicant(s)

SWIHART ET AL.

Examiner

Richard L. Schilling

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 5-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 4 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☒ Claim(s) 1-12 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11-10-03</u> | 6) <input type="checkbox"/> Other: ____ |

1. Restriction to one of the following inventions is required under 35 U.S.C. § 121:

I. Claims 1-4, drawn to transfer system and method, classified in Class 430, subclass 200.

II. Claims 5-12, drawn to method of making a mask and exposing, classified in Class 430, subclass 5. The inventions are distinct, each from the other because of the following reasons:

The method of Group II need not use the method of Group I or the elements of Group I to generate an uv mask and may use, for example, ink jet uv mask generation, silver salt diffusion transfer, uv dye vapor transfer, transfer layers with uv absorbers and infrared dyes in the same layer or photoresist development containing uv absorbers. The transfer image generated in Group I need not be used in the processes of Group II, but may be used, for example, as an etching mask or as a resist that is dyed to form a color image. Claim 12 has been grouped with Group II since claim 12 uses all of the steps generically set forth in claim 5.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classifications, restriction for examination purposes as indicated is proper.

Art Unit 1752

During a telephone conversation with Mr. Wu on December 20, 2004 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-4. Affirmation of this election must be made by applicant in replying to this Office action. Claims 5-12 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3 and 4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ellis et al. Ellis et al. (see particularly column 8, lines 3-10; column 3, lines 45-61; column 5, line 63 - column 7, line 31; column 11, lines 55-67; column 12, line 48 - column 13, line 21; Examples 8-13) disclose transfer donor elements comprising dynamic release layers containing infrared absorbers which also transfer and transferable top coat layers which may comprise black body absorbers, which are highly uv absorbing, or uv absorbers for the production of uv exposure masks by transfer to receptor elements. If Ellis et al. do not anticipate the instant claims, then it would at least be obvious to one skilled in the art to adjust the amount of uv absorbing materials in the top coats of Ellis et al. in order to provide sufficient uv absorption for uv photomask use.

3. Claims 1, 3 and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Neuman or De Boer '568 both further in view of Van Zoeren. Neuman (see particularly column 2, lines 14-61; column 4, lines 29-55; column 6, lines 3-10; column 7, lines 45-62) and De Boer (see particularly column 2, lines 25-66; column 4, lines 9-22; column 5, lines 2-15) disclose elements comprising infrared absorbers and uv absorbers which are ablated to make uv exposure masks

wherein the infrared absorbers may be in an underlayer. The ablated exposed portions of the uv absorbing layers are not disclosed as being transferred. However, Van Zoeren (see particularly column 3, lines 14-25; column 11, lines 25-60) teaches the use of capture sheets for receiving ablated materials from infrared sensitive ablation layers to reduce back transfer.

Therefore, it would be obvious to one skilled in the art to use receiving capture sheets as in Van Zoeren to capture the ablated materials in the processes of De Boer or Neuman to prevent back transfer.

4. Claims 1, 3 and 4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Weidner et al. Weidner et al. (see particularly column 1, lines 45-65; column 4, lines 6-13; column 5, line 62 - column 7, line 25; column 9, lines 10-23) discloses receptor elements and donor elements comprising propellant layers with infrared absorbing dyes overcoated with colorant layers which may comprise black colorants which would absorb uv radiation.

5. The prior art submitted by applicants has been considered. Patel et al. '505 is cited of interest in the art as disclosing the generation of uv masks over photosensitive compositions using laser light.

6. Claim 2 is objected to as depending on a rejected claim

Serial No. 10/689,468

-6-

Art Unit 1752

but would be allowable if written in proper independent form. The prior art does not suggest using donor elements with infrared sensitive layers as in instant claim 2 overcoated with a layer of uv absorbing material. Patel et al. '758 discloses the layers of instant claim 2 but does not disclose overcoating the layers with uv absorbing materials and is directed to cross-linking during transfer with imaging pigments within the cross-linking layer. The prior art with uv overcoats, e.g. Ellis et al., is directed to ablation transfer while Patel is directed to melt transfer so that the teachings are not combinable.

6. Any inquiry concerning this communication should be directed to Mr. Schilling at telephone number (571) 272-1335.

RLSchilling:cdc

December 28, 2004

RICHARD L. SCHILLING
PRIMARY EXAMINER
GROUP 1100-1752

